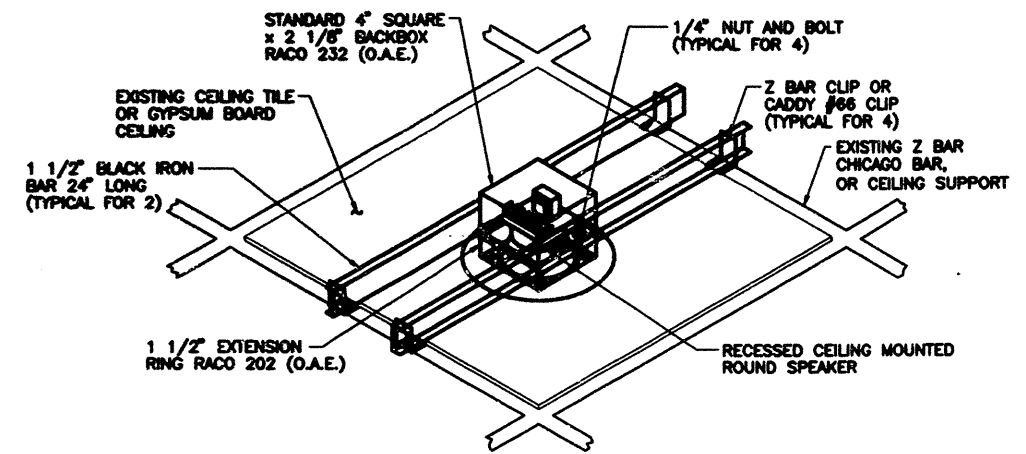
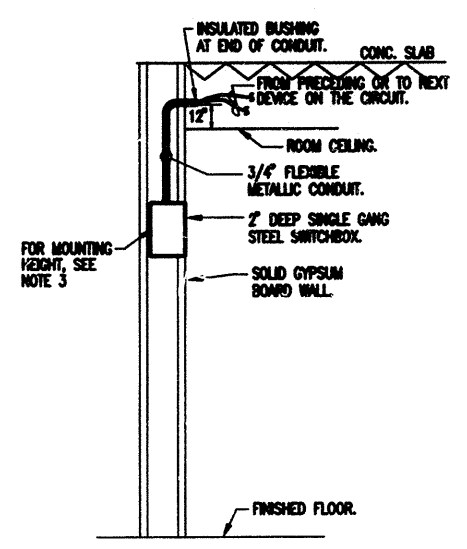


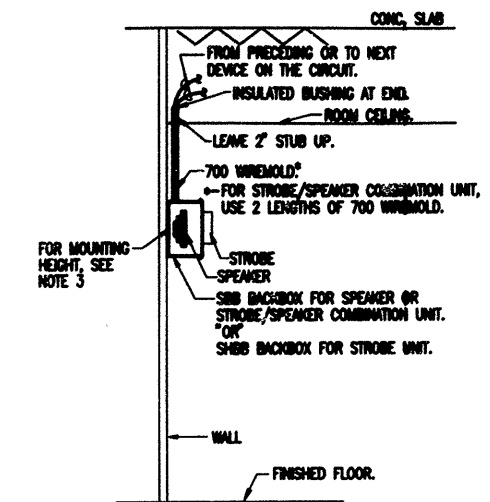
REVISION No. 9



TYPICAL RECESSED SPEAKER INSTALLATION
DETAIL "A"
N.T.S.

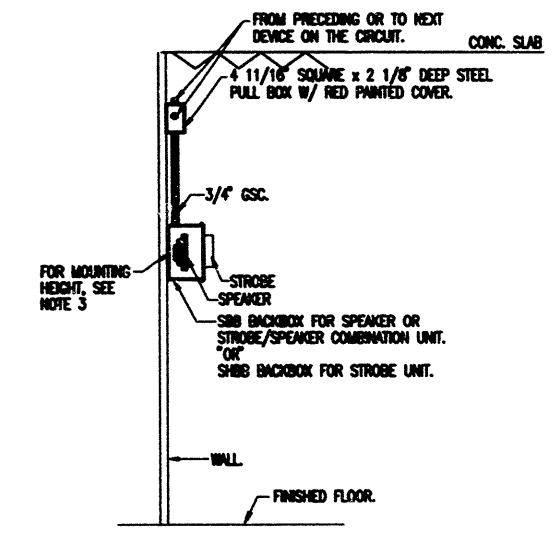


TYPICAL FLUSH MOUNTED
STROBE INSTALLATION DETAIL "B"
N.T.S.

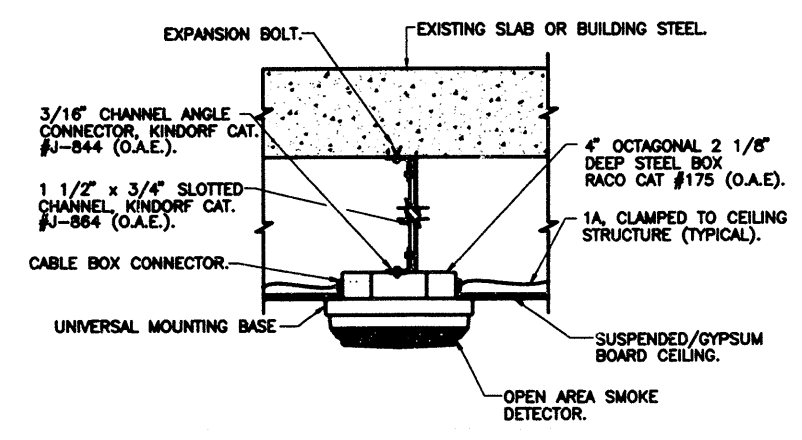


TYPICAL SURFACE MOUNTED
STROBE, SPEAKER OR COMBINATION
INSTALLATION DETAIL "C"
N.T.S.

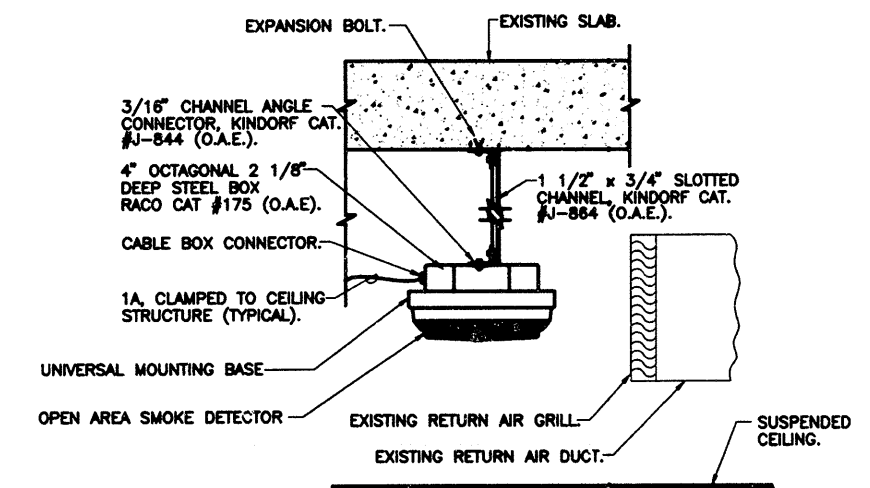
- NOTES:**
1. FOR ABBREVIATIONS, TERMINATION & CIRCUIT LEGEND, GENERAL NOTES AND LEGEND/SPECIFICATION, SEE DWG E-1.
 2. FOR WIRING DIAGRAMS, SEE DWG E-3.
 3. CONTRACTOR SHALL INSTALL THE FIRE ALARM DEVICE AT 8' ABOVE FINISHED FLOOR OR 6' BELOW ROOM CEILING, WHICHEVER IS LOWER.
 4. RETURN AIR SMOKE DETECTORS SHALL BE MOUNTED 8' IN FRONT OF THE RETURN AIR GRILL.
 5. FOLLOW MAUFACTURER'S RECOMMENDATIONS FOR DETECTOR BASE WIRE PENETRATION IN ORDER TO PREVENT "DRAFTING" THROUGH BASE.



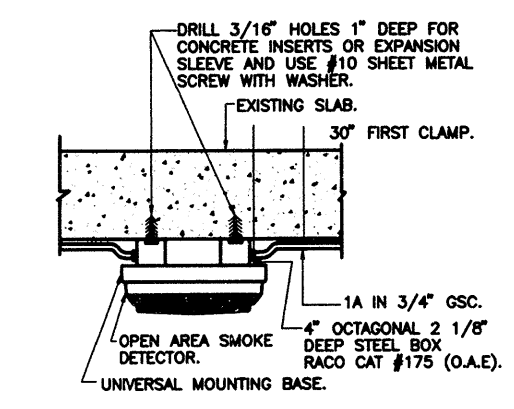
TYPICAL SURFACE MOUNTED
STROBE, SPEAKER OR COMBINATION
INSTALLATION DETAIL "D"
N.T.S.



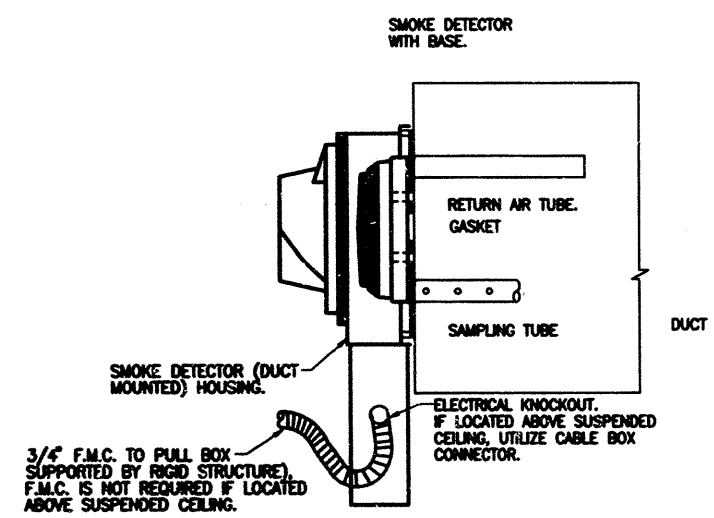
SMOKE DETECTOR INSTALLATION DETAIL "E"
(FOR SUSPENDED CEILING)
N.T.S.



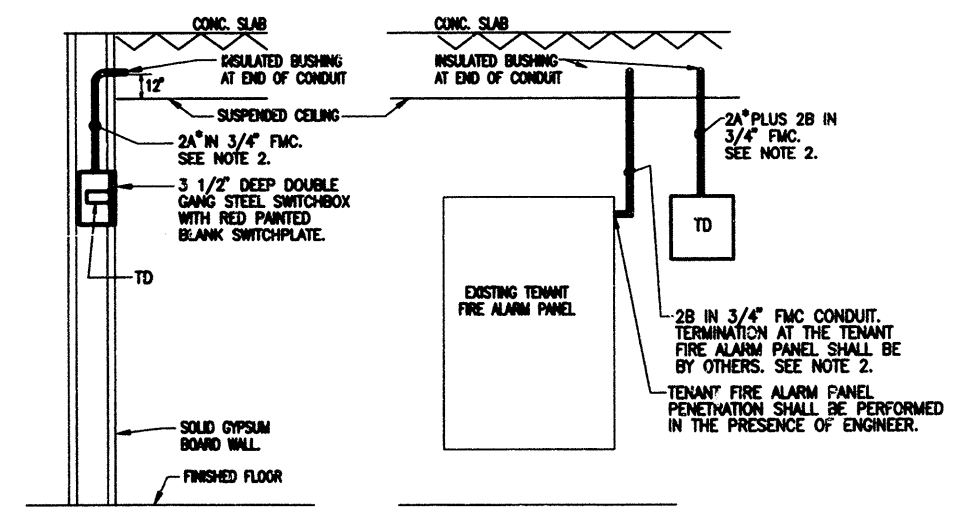
SMOKE DETECTOR INSTALLATION DETAIL "F"
(IN FRONT OF RETURN AIR GRILL)
N.T.S.



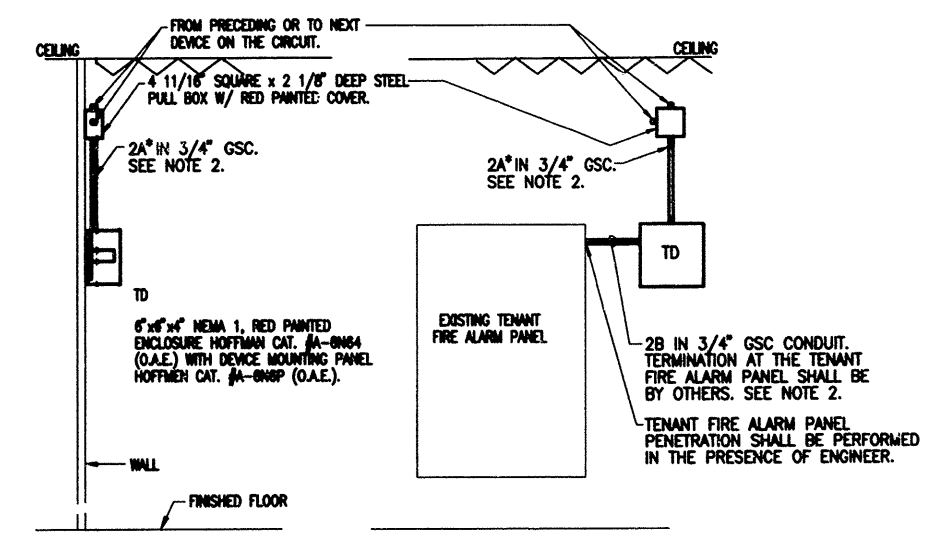
SMOKE DETECTOR INSTALLATION DETAIL "G"
(FOR OPEN CEILING)
N.T.S.



SMOKE DETECTOR INSTALLATION DETAIL "H"
(DUCT MOUNTED IN HOUSING W/ SAMPLING TUBE)
N.T.S.



TYPICAL FLUSH MOUNTED TO INSTALLATION DETAIL "I"
(NEAR EXISTING FLUSH MOUNTED TENANT F.A. PANEL)
N.T.S.



TYPICAL SURFACE MOUNTED TO INSTALLATION DETAIL "J"
(NEAR EXISTING SURFACE MOUNTED TENANT F.A. PANEL)
N.T.S.

THE PORT AUTHORITY
OF NY & NJ

[Signature]
ENGINEERING PROGRAM MANAGER
WORLD TRADE CENTER
CHIEF ELECTRICAL ENGINEER

1	8/23/99	AS-BID	<i>[Signature]</i>
No.	Date	Revision	Approved
ENGINEERING DEPARTMENT DESIGN DIVISION			
WORLD TRADE CENTER			
ELECTRICAL			

Fire Alarm System
Device Upgrade
Phase III
1 World Trade Center
Contract No. 3

SPEAKER, STROBE
& SMOKE DETECTOR
MOUNTING DETAILS
& WIRING DIAGRAM

This drawing subject to conditions in Contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

S. FELDSTEIN R. DUKEZMIRE A.S.
Designed by Drawn by Checked by

AUGUST 9, 1999
Date

WTC-861.176 E-2
Contract Number Drawing Number